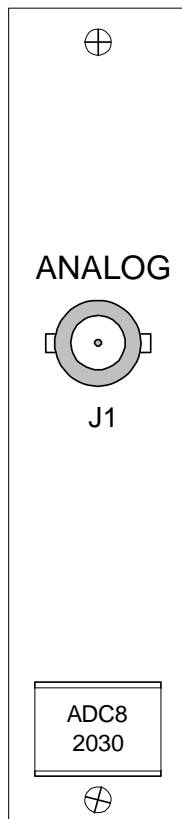


MODEL MITC *FALCON*
June 26, 2002

ADC8 HIGH SPEED A/D CONVERTER MODULE

The ADC8 module (2030) digitizes an analog input at programmable sample rates up to 5 Ms/s. The quantization level is selectable between 8 and 12 bits. The data is sampled and placed into the *FALCON* Model 430 Mux/Demux composite data stream along with other input channels. The Demux process uses the companion DAC8 module to reconstruct the analog signal. An user-enabled DSP based FIR filter provides enhanced anti-alias filtering (sharper cutoff transition) with constant group delay for operation at the maximum 5 MS/s to provide a high fidelity analog bandwidth of 2 MHz.

ANALOG INPUT



- Single channel, digitized to 8 or 12 bits
- Selectable Sampling Rate, 100 kS/s thru 5 MS/s in 1k steps
- When the FIR filter is enabled, the ADC is set to oversample the input by a factor of 3. The FIR filter is automatically set for 2 MHz passband and resulting the 15 MS/s data is decimated to 5 MS/s
- Input range: -2.5 to +2.5 Volts
- 50 / 75 1k ohm selectable input impedance
- BNC type connector

MUX CHANNEL CHARACTERISTICS

- Selectable Channel ID
- Requires 1 MITC chassis slot